

REMARKS

Re-examination and allowance of the present application is respectfully requested.

Upon entry of the present amendment, claim 1 will have been amended to include the subject matter of claim 5, and thus, claim 5 will have been canceled. Accordingly, claims 1-4 and 6-10 remain pending and are being submitted for reconsideration by the Examiner in charge of the present application.

Claims 1, 3, 4, 9, and 10 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 6,330,534 to YASUNAGA et al. Claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over YASUNAGA et al., in view of Japanese Patent Publication No. 2000-322097 to MITSUBISHI. Claims 5-8 stand rejected under 35 U.S.C. §103(a) as being obvious over YASUNAGA et al. in view of U.S. Patent 5,774,838 to MISEKI et al.

Applicant respectfully traverses the above-noted rejections, and submits that they are inappropriate with respect to the combination of features recited in Applicant's claims. Accordingly, Applicant respectfully requests reconsideration and withdrawal of each of the outstanding rejections.

Applicant's invention is directed to a coding method of an excitation vector of a stochastic codebook that is used in a coding apparatus and that is divided into a plurality of channels. According to the claimed invention, an excitation vector waveform candidate of a predetermined channel is associated with a waveform number of an excitation vector waveform candidate of another channel or a remainder operation result of a number representing an excitation vector waveform candidate of another channel used to acquire the waveform number. An excitation vector waveform that minimizes coding distortion is searched for using the associated excitation vector waveform candidate of the predetermined channel and the excitation

vector waveform candidate of the another channel. A code of the excitation vector of the stochastic codebook is then determined using a code of the excitation vector waveform obtained by the searching.

It is respectfully submitted that the combination of features recited in Applicant's claim 1 is not taught, disclosed, or rendered obvious by the various applied references of record, either individually or in the combinations suggested by the Examiner.

YASUNAGA et al. discloses an excitation vector generator, speech coder and speech decoder, in which a random code reading section and a random codebook of a conventional CELP type speech coder/decoder are respectively replaced with an oscillator that outputs different vector streams in accordance with values of input seeds, and with a seed storage section for storing a plurality of seeds.

Applicant submits that YASUNAGA et al. fails to disclose, let alone suggest, associating an excitation vector waveform candidate of a predetermined channel with a waveform number of an excitation vector waveform candidate of another channel, or a remainder operation result of a number representing an excitation vector waveform candidate of another channel used to acquire the waveform number, as recited in amended independent claim 1. That is, Applicant submits that YASUNAGA et al. fails to disclose anything equivalent to Applicant's claimed "associating an excitation vector waveform candidate of a predetermined channel with a waveform number of an excitation vector waveform candidate of another channel, or a remainder operation result of a number representing an excitation vector waveform candidate of another channel used to acquire the waveform number", as recited in amended claim 1.

Applicant further submits that MISEKI et al. fails to disclose or suggest the above-discussed feature that is lacking in YASUNAGA et al.

MISEKI et al. discloses pre-selection of a noise codebook, in which the amount of calculations is decreased by calculating code vector elements selected at regular intervals (i.e., partial inner products) to obtain inner products of selected code vectors, and, at the same time, performing remainder operations for the vector elements.

Applicant submits that this differs from the presently claimed invention defined by claim 1, in which, in the pre-selection of a noise codebook, a vector code number (i.e., a waveform number) is associated with a waveform number of an excitation vector waveform candidate of another channel, or a remainder operation result of a number representing an excitation vector waveform candidate of another channel (i.e., a remainder operation result of the channel index). Thus, Applicant submits that the present invention differs from MISEKI et al.

Similarly, Applicant submits that MITSUBISHI fails to disclose or suggest the above-discussed feature lacking in YASUNAGA et al. and MISEKI et al.

Accordingly, Applicant submits that even if one attempted to combine the teachings of the various applied references in the various manners suggested by the Examiner, one would fail to arrive at the presently claimed invention defined by claim 1, as such combinations would fail to include associating an excitation vector waveform candidate of a predetermined channel with a waveform number of an excitation vector waveform candidate of another channel, or a remainder operation result of a number representing an excitation vector waveform candidate of another channel used to acquire the waveform number.

Applicant further submit that claims 2-4 and 6-10 depend, either directly or indirectly, from claim 1, and thus, are allowable for at least the same reasons applicable to claim 1, and further, for the combination of features recited in each dependent claim.

In view of the above, Applicant submits that the grounds for the 35 U.S.C. §102(b) rejection, and the two 35 U.S.C. §103(a) rejections, set forth in the final Office Action no longer exist. Accordingly, the Examiner is respectfully requested to withdraw these grounds of rejection, to indicate the allowability of the pending claims, and to pass the application to issue.

SUMMARY AND CONCLUSION

In view of the fact that none of the art of record, whether considered alone or in combination, discloses or suggests the present invention as now defined by the pending claims, and in further view of the above amendments and remarks, reconsideration of the Examiner's action and allowance of the present application are respectfully requested and are believed to be appropriate.

Pursuant to M.P.E.P. §714.13, Applicant submits that entry of the present amendment is appropriate because the proposed amended claims avoid the rejections set forth in the last Office Action, resulting in the application being placed in condition for allowance, or, alternatively, the revised claims place the application in better condition for purposes of appeal. Further, the revised claims do not present any new issues that would require any further consideration or search by the Examiner, and the amendment does not present any additional claims for consideration. Accordingly, entry of the present amendment is respectfully requested.

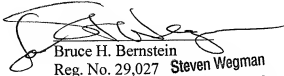
Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should an extension of time be necessary to maintain the pendency of this application, including any extensions of time required to place the application in condition for allowance by an

Examiner's Amendment, the Commissioner is hereby authorized to charge any additional fee to Deposit Account No. 19-0089.

If there should be any questions concerning this application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,
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